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CLAIMS

What is claimed is:

- 5 1. A detection device for use with a universal anchor of a vehicle,
 comprising:
 a housing being configured to be fixedly secured to the universal
 anchor;
 a moveable member slidably received within said housing; and
10 a sensing switch configured to detect the movement of said
 moveable member, said sensing switch providing a detectable signal when said
 moveable member is moved.
2. The detection device as in claim 1, wherein said sensing switch
15 comprises a Hall effect device positioned to sense the magnetic field of a
 magnet disposed on said movable member.
3. The detection device as in claim 1, wherein said movable
 member comprises a slide portion configured to be slidably received within an
20 opening of said housing, said magnet being disposed on said slide portion.
4. The detection device as in claim 1, wherein said detectable signal
 being received by a controller of an airbag module.
- 25 5. The detection device as in claim 1, wherein said movable
 member is biased into a first position, wherein said movable member must be
 moved from said first position to allow a hook to engage the anchor.

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6. The detection device as in claim 5, wherein said sensing switch comprises a Hall effect device positioned to sense the magnetic field of said magnet.
- 5 7. The detection device as in claim 6, wherein said movable member comprises a slide portion configured to be slidably received within an opening of said housing, said magnet being disposed on said slide portion.
8. The detection device as in claim 7, wherein said detectable signal
10 being received by a controller of an airbag module and said controller suppresses the operation on an airbag module in response to said detectable signal received from said sensing switch.
9. The detection device as in claim 1, wherein the anchor defines an
15 opening and said movable member effectively blocks the opening when said movable member is in a first position and movement of said movable member from said first position is detected by said sensing switch.
10. The detection device as in claim 9, wherein said movable
20 member comprises a slide portion and an actuating end, said slide portion being configured to be slidably received within an opening of said housing.
11. The detection device as in claim 10, wherein said actuating end is
25 configured to have a channel for guiding a hook as it is being secured to the anchor.
12. The detection device as in claim 1, wherein the movement of said movable member is linear.

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13. A method for determining whether a securement member of a child seat is secured to a universal anchor of a vehicle, comprising:

positioning a detecting device on the universal anchor, said detecting device comprising a movable member which effectively blocks an opening of the anchor when it is in a first position; and

providing a signal to a controller when said movable member is moved from said first position, wherein the movement of said movable member is caused by engaging a securement member on the anchor.

14. The method as in claim 13, wherein said movable member further comprises a magnet and said detecting device further comprises a sensing assembly for sensing the magnetic field of said magnet, said sensing assembly providing said signal.

15. The method as in claim 14, wherein said sensing assembly further comprises a Hall effect device and related circuitry and said controller suppresses the operation on an airbag module in response to said signal.

16. A universal anchor for a structural member of a vehicle, comprising:

an anchor being configured to define an opening, said anchor being secured to the structural member and said anchor is capable of movement with respect to the structural member when a tension force is applied to said anchor;

a detection device, comprising a housing being secured to said anchor, a movable member slidably received within said housing for movement between a first position and a second position, said movable member effectively blocking said opening when said movable member is in said first position; and

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a sensing device for detecting movement of said movable member from said first position.

17. The universal anchor as in claim 16, further comprising:

5 a bracket and securement assembly for movably securing said anchor to the structural member;

a tension detection device disposed on said bracket, said tension detecting device being configured to detect movement of said anchor; and

10 a securement member for securing said bracket to the structural member.

18. The universal anchor as in claim 17, wherein said securement member further comprises a hook portion for engaging an opening on the structural member.

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19. The universal anchor as in claim 17, wherein said securement assembly further comprises: a stopping member for engaging a portion of said bracket said stopping member being secured to said anchor and said stopping member moves as said anchor moves when a tension force is applied to said anchor.

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20. The universal anchor as in claim 19, wherein said stopping member is biased against said bracket by at least one spring disposed about a portion of said anchor.

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21. The universal anchor as in claim 20, wherein said tension detection device detects movement of a magnet disposed on said stopping member and said sensing device detects movement of a magnet disposed on said moveable member.

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22. A universal anchor for a structural member of a vehicle,
comprising:

an anchor being configured to define an opening, said anchor
5 being secured to the structural member and said anchor is capable of movement
with respect to the structural member when a tension force is applied to said
anchor;

a detection device, comprising a housing being secured to said
anchor, a movable member slidably received within said housing for movement
10 between a first position and a second position, said movable member effectively
blocking said opening when said movable member is in said first position;

a sensing device for detecting movement of said movable
member from said first position;

a securement assembly for movably securing said anchor to the
15 structural member; and

a tension detection device being positioned to detect movement
of said anchor with respect to said securement assembly.

23. The universal anchor as in claim 22, further comprising: a motor
20 configured to apply a force to said anchor, said force moving said anchor with
respect to said securement assembly.

24. The universal anchor as in claim 23, wherein said tension
detecting device detects movement of a magnet when said anchor is moved with
25 respect to said securement assembly and said sensing device detects movement
of a magnet disposed on said moveable member.

25. The universal anchor as in claim 23, wherein said tension
detecting device provides a signal to a controller indicative of movement of said

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anchor and said sensing device provides a signal to said controller indicative of movement said movable member and said motor receives operational signals from said controller in response to said signals provided by said tension detecting device and said sensing device.

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26. The universal anchor as in claim 25, wherein said controller suppresses the operation on an airbag module in response to predetermined signals received from either or both said tension detecting device and said sensing device.

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